240-TH ANNIVERSARY OF THE BIRTH OF
BENJAMIN GOMPertz

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In upcoming year we will celebrate an event of 240\textsuperscript{th} years of the birth of one of the most impact people in theoretical Biology Benjamin Gompertz \cite{1}-\cite{6}.

Benjamin Gompertz is born on March 5, 1779 in family of merchants.
He is one of three sons.
Benjamin is self educated using sources by Newton and Maclaurin.
He hasn’t other way because he doesn’t have permission to learn in universities because he is Jewish.
He is supported by the Spitalfields Mathematical Society (now London Mathematical Society).

Gompertz writes to De Morgan, that he became member of the Society at only 18 years of age when they have a rule that for members it is necessary to have at least 21 years.

Gompertz participates in the stock exchange in 1810 and he becomes Fellow of the Royal Society in 1819.
In 1820 he reads paper in the Society for the calculation of life expectancy. After four years Gompertz is employed as actuary in Alliance Assurance Company.

This company is owned by Sir Moses Montefiore, the brother of Gompertz’s wife.

Soon Gompertz received his Law of Mortality. Gompertz proved that the mortality rate is in geometric progression.

Gompertz function is the most informative actuarial function for studying the ageing.

The slope of the Gompertz function gives the rate of actuarial ageing.

The differences in longevity between species are expressed in differences in slope of the Gompertz function.

His expertise in this subject is highly valued from many institutions in 1825 and 1827, and he did many serious computations for the army. His achievements are now central when human mortality is studied.

Gompertz writes Theory of astronomical instruments (1822), A new instrument called the differential sextant (1825) and On the converted pendulum (1829).

Simultaneously he is member of the Royal Astronomical Society.

In particular he helped Francis Baily to cataloging fixed stars when request for accurate tables was put forward to which the Council agreed to do their best. They give the constants for 3000 fixed stars.

Gompertz is founder member of the Royal Statistical Society from 1834 to 1848.

The mathematical work Hints on Porisms in 1850 is his article for human mortality which is presented on International Statistical Congress of 1860.

When he is 86 years old the London Mathematical Society organize first meeting on 16 January 1865.

Gompertz began work on paper for publication in Proceedings of the London Mathematical Society which is newly established at this moment.

Original works [2]:

- Gompertz’s work on life contingencies appeared in the Philosophical Transactions of the Royal Society:

- ”A Sketch of the Analysis and Notation Applicable to the Value of Life Contingencies”, 110 (1820), 214–294;

"A Supplement to the Two Papers of 1820 and 1825", 152 (1862), 511–559;

"The Application of a Method of Differences to the Species of Series Whose Sums Are Obtained by Mr. Landen by the Help of Impossible Quantities", ibid., 96 (1806), 174–194, led to The Principles and Applications of Imaginary Quantities, 2 vols. (London, 1817-1818). The sequel to these two tracts is Hints on Porisms ... (London, 1850);

A regular contributor to the Gentleman’s Mathematical Companion from 1796, Gompertz was awarded their annual problem-solution prize every year from 1812 to 1822.

Gompertz’s ideas are developed further by many scientists. We too worked on extension of his equation [7]–[11]. The general research is in the book [12] which is dedicated to him.
Figure 2: A Sketch of the Analysis and Notation Applicable to the Value of Life Contingencies, 110 (1820), 214–294.

Figure 3: The book which we dedicated to Benjamin Gompertz in 2018 [12].
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References
